IN THE SPECIFICATION

Please amend the specification as follows:

The paragraph beginning at page 6, line 9 is amended as follows:

As shown in FIG. 1, the computing system 100 includes a processor. The invention can be implemented on computers based upon microprocessors such as the PENTIUM® family of microprocessors manufactured by the Intel Corporation, the MIPS® family of microprocessors from the Silicon Graphics Corporation, the POWERPC® family of microprocessors from both the Motorola Corporation and the IBM Corporation, the PRECISION ARCHITECTURE® family of microprocessors from the Hewlett-Packard Company, the SPARC® family of microprocessors from the Sun Microsystems Corporation, or the ALPHA® family of microprocessors from the Compaq Computer Corporation. Computing system 200 100 represents any personal computer, laptop, server, or even a battery-powered, pocket-sized, mobile computer known as a hand-held PC.

The paragraph beginning at page 9, line 6 is amended as follows:

The embodiments of the invention describe a software environment of systems and methods that provide for the retrospective gating of medical images. FIG. 2 is a block diagram describing the major components of such a system. As shown, the system includes an image scanner 202 and an image processing system 204 206.

The paragraph beginning at page 11, line 9 is amended as follows:

A method for categorizing and selecting images according to an embodiment of the invention for performing image-based retrospective gating of scanned medical image data is illustrated in FIG. 3. A system executing the method begins by receiving scanned image data (block 302). In one embodiment of the invention, the scanned image data is received from a CT scanner such as scanner 202 (FIG. [[1]] 2). However, the invention is not limited to any particular method of obtaining the scanned image data. As will be appreciated by those of skill in the art, any system capable of producing a volumetric sequence of images is within the scope of the invention. It is desirable that the images are heavily overlapped axial images of the chest. The axial overlap provides the ability for the system to select a subset of images acquired when

the heart was most at rest and still adequately sample the heart to its full anatomical extent.

The paragraph beginning at page 25, line 3 is amended as follows:

FIG. 5 illustrates a sample of the signals obtained using the methods described above. Graph 502 illustrates the difference between an EKG-derived signal an image-derived signal for ventricular systole. Graph 504 illustrates the difference between an EKG-derived heart rate and an image-derived heart rate. Graph 506 presents two signals, ~~Raw~~ a raw signal ~~508~~ illustrated as a dashed line which represents the signal before filtering, and a filtered signal ~~510~~ illustrated as a solid line which represents the signal after the filtering described above has been applied.